

REMARKS

Claims 1-15, 17-20, 35-50, 52-56 and 58-62 are pending in the present application.

Claims 14, 15, 46-50, 53, 54, 59 and 60 are objected to as depending from rejected base claims. Claims 1-13, 17-20, 35-45, 52, 55, 56, 58, 61 and 62 stand rejected. Applicant has amended claims 1, 12, 35, 52, 58 and 62 and Applicant believes that the present application is now in condition for allowance, which prompt and favorable action is respectfully requested. No new matter has been added.

35 U.S.C. § 103(a) Obviousness RejectionsObviousness Rejection Based on U.S. Patent No. 7,447,287.

Claims 1-8, 12, 13, 35-39, 41, 43-45, 52, 58 and 62 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,447,287 to Parantainen (“Parantainen”). Applicant respectfully traverses this rejection, as hereinafter set forth.

To establish a *prima facie* case of obviousness the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 985 (CCPA 1974); *see also* MPEP § 2143.03. Additionally, there must be “a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1742, 167 L.Ed.2d 705, 75 USLW 4289, 82 U.S.P.Q.2d 1385 (2007). Finally, to establish a *prima facie* case of obviousness there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Furthermore, the reason that would have prompted the combination and the reasonable expectation of success must be found in the prior art, common knowledge, or the nature of the problem itself, and not based on the Applicants’ disclosure. *DyStar Textilfarben GmbH & Co. Deutschland KG v. C. H. Patrick Co.*, 464 F.3d 1356, 1367 (Fed. Cir. 2006); MPEP § 2144. Underlying the obvious determination is the fact that statutorily prohibited hindsight cannot be used. *KSR*, 127 S.Ct. at 1742; *DyStar*, 464 F.3d at 1367.

The 35 U.S.C. § 103(a) obviousness rejections of claims 1-8, 12, 13, 35-39, 41, 43-45, 52, 58 and 62 are improper because the elements for a *prima facie* case of obviousness are not

met. Specifically, the rejection fails to meet the criterion that the prior art references must teach or suggest all the claims limitations.

Regarding independent claims 1, 12, 35, 52, 58 and 62, Applicant's independent claims 1, 12, 35, 52, 58 and 62 recite the "*determining/determination*" of issuing a grant in response to a request for grant, *is performed within the base station* while Parantainen teaches determination is performed *outside of the base station*. Specifically, Applicant's independent claims recite, *inter alia*:

Claim 1: A *base station comprising ... a processing subsystem configured ... to send a grant ... if a determination is made at the base station to issue the grant ...*

Claims 12, 52, 58 and 62: ... *a [] grant [is] determined at [] the base station ...*

Claim 35: A *method for a base station comprising ... sending a grant ... if a determination is made at the base station to issue the grant ...*

Clearly Applicant claims the determination in response to a request for grant occurs *within the base station* and not *external to the base station* as taught in Parantainen. Applicant respectfully points out that the allegations relating to Parantainen in the Office Action do not correspond with Applicant's claims. The Office Action clearly cites to Parantainen which teaches the determination occurring *outside the base station*. Furthermore, the Office Action takes contradictory positions with regard to the teachings in Parantainen. In one instance the Office Action (1) attempts to include the PCU *as part of* the Base Station *Subsystem* (which *not* a base station itself) and then (2) attempts to take the position, at least with respect to Applicant's claim 3, that the PCU is *separate from* BS 102. Such a contradictory reinterpretation of the disclosure of the cited reference is improper.

Generally, Parantainen teaches the PCU merely maps a separately "negotiated QoS profile [] into a certain channel coding and/or interleaving scheme" (col. 6, lns. 29-31) while the "negotiating" (alleged to be Applicant's "determining") occurs separately in a Serving GPRS Support Node (SGSN) operating in an external GPRS 105 (col. 4, lns. 2-6; Fig. 1, ele. 105; col. 6, lns. 21-31). Specifically, the Office Action alleges:

Parantainen teaches a transceiver subsystem (BS; Fig. 1 element 102) ... to make a determination whether or not to issue a grant to the mobile station in response to the request for grant to send a grant for the specific service class to the mobile station if a determination is made to issue the grant, and to receive data for the

specific service class transmitted according to the grant on a reverse link from the mobile station to the base station (*the PCU 103, which is part of the BSS, signals the allocation* to the BS and the MS based on the QoS request including the specific QoS parameter) (Col. 6, lines 21-54). (Office Action pp. 2-3; emphasis added).

Applicant respectfully disagrees with the assertion that Parantainen teaches *the base station makes a determination to issue a grant*. In support of Applicant's position, Applicant relies upon the specific citation asserted for support in the Office Action. Specifically, the Office Action's citation to Parantainen at column 6, lines 21-54 supports Applicant's position that any Parantainen "determination" to issue a grant at least partially occurs *external* to the base station since regarding PCU 103, Parantainen merely teaches "it is on the responsibility of the *PCU to use the negotiated QoS profile for mapping it* onto a certain channel coding and/or interleaving scheme." (Parantainen, col. 6, lns. 28-31; emphasis added).

Specifically, Parantainen teaches at the Office Action's citation:

The step of negotiating a QoS profile is not shown in FIG. 2. It typically involves the SGSN which is the peer of the MS in the QoS negotiation. The SGSN may ask the PCU or other network element about the possibility of allowing a certain QoS profile to be used, taken the capacity and current traffic load situation of a certain BS and/or BSC. If such a request is made and the PCU gives its approval, the SGSN conducts the negotiation to its end in a known way, after which it is on the responsibility of the PCU to use the negotiated QoS profile for mapping it into a certain channel coding and/or interleaving scheme.

Taken the current set of available channel coding alternatives in GPRS, it would be advantageous if additional optimized channel coding schemes would be developed for at least speech and possibly also for real time video. The invention does not limit the actual selection of channel coding methods, but it is known to be advantageous to avoid retransmissions in a speech bearer and to have variable strengths of channel coding for the different parts of a transmission burst. Additionally it is known to be advantageous to have a relatively long interleaving length for speech or real time video: for example the duration of eight or ten transmission frames.

When the PCU has made the allocation for the requested bearer and decided the channel coding and interleaving schemes it signals the allocation to the BS and the MS as illustrated with 207. At this moment the device which requested the bearer setup or redefinition still has the chance to reject the allocation, which mainly applies to cases where the PCU was not able to grant the allocation in its requested form but offers an alternative allocation instead. If the MS accepts the allocation it performs bearer reconfiguration at step 208 more or less simultaneously with a similar operation 209 in

the BS, after which the communication continues by using the newly allocated or redefined bearer. (Parantainen, col. 6, lns. 21-54; emphasis added).

Furthermore, Parantainen clearly teaches the SGSN is separate from the PCU by specifically teaching:

FIG. 1 illustrates an arrangement consisting of a mobile station or MS 101, a base station or BS 102, a packet control unit or PCU 103 coupled to a base station controller or BSC 104, a GPRS network 105 as well as a number of connections from said devices to other parts of the telecommunication system. There is a radio interface between the MS 101 and the BS 102, a wired connection and/or e.g. a directional microwave link between the BS 102 and the BSC 104 and *a wired or optical fibre connection between the PCU 103 and the GPRS network 105*. With a *GPRS network we mean a widespread arrangement of mutually interconnected computers comprising a number of Serving GPRS Support Nodes (SGSNs) and Gateway GPRS Support Nodes (GGSNs) operating in accordance with the known GPRS specifications*. (Parantainen, col. 3, ln. 60-col. 4, ln. 6; emphasis added).

Clearly *Parantainen teaches any determination is at least partially performed external to the PCU in the SGSN* portion of GPRS 105. In contrast, Applicant's independent claims 1, 12, 35, 52, 58 and 62 each recite *the determination to issue the grant is made at the base station*. Specifically, Applicant's independent claims recite, *inter alia*:

Claim 1: A base station comprising ... a processing subsystem configured ... to send a grant ... if a determination is made at the base station to issue the grant
 Claims 12, 52, 58 and 62: ... a grant [is] determined at [the] base station
 Claim 35: A method for a base station comprising ... sending a grant ... if a determination is made at the base station to issue the grant

Therefore, since Parantainen does not teach or suggest Applicant's invention as claimed, Parantainen cannot render obvious, under 35 U.S.C. §103, Applicant's invention as presently claimed in amended independent claims 1, 12, 35, 52, 58 and 62. Accordingly, Applicant respectfully requests the rejections of presently amended independent claims 1, 12, 35, 52, 58 and 62 be withdrawn.

Regarding dependent claims 4 and 45, the Office Action alleges:

Parantainen teaches wherein the *determination is made at a MAC layer (Col. 6, lines 55-60)*. (Office Action, p4; emphasis added).

Applicant respectfully disagrees. Parantainen actually teaches use of the MAC layer to communicate a bit field indicative of a specific channel coding/interleaving scheme to be applied. Specifically, Parantainen actually teaches at the alleged citation:

Informing the BS about the channel coding/interleaving scheme to be applied may take place by for example using a certain bit field within a RLC/MAC header (Radio Link Control/Medium Access Control) to indicate a value which the BS is able to unequivocally translate into a certain channel coding/interleaving scheme. The use of a certain channel coding/interleaving scheme may also be stored in the BS according to a certain data flow (TBF, Temporary Block Flow) for a certain user. (Parantainen, col. 6, lns. 55-60; emphasis added).

Clearly, Parantainen does not teach “the *determination is made at a medium access control layer*” (claim 4) or “the *determining whether to issue the grant is performed at a medium access control layer*” (claim 45) as claimed by Applicant.

Therefore, since Parantainen does not teach or suggest Applicant’s invention as claimed, Parantainen cannot render obvious, under 35 U.S.C. §103, Applicant’s invention as presently claimed in dependent claims 4 and 45. Accordingly, Applicant respectfully requests the rejections of dependent claims 4 and 45 be withdrawn.

Regarding dependent claims 2-8, the nonobviousness of independent claim 1 precludes a rejection of claims 2-8 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 1 and claims 2-8 which depend therefrom.

Regarding dependent claim 13, the nonobviousness of independent claim 12 precludes a rejection of claim 13 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 12 and claim 13 which depends therefrom.

Regarding dependent claims 36-39, 41 and 43-45, the nonobviousness of independent claim 35 precludes a rejection of claims 36-39, 41 and 43-45 which depend therefrom because a

dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to independent claim 35 and claims 36-39, 41 and 43-45 which depend therefrom.

Obviousness Rejection Based on Parantainen and U.S. Pat. No. 6,836,666

Claims 9-11, 40 and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Parantainen in view of U.S. Patent No. 6,836,666 to Gopalakrishnan *et al.* (“Gopalakrishnan”). Applicant respectfully traverses these rejections as hereinafter set forth.

The nonobviousness of independent claim 1 precludes a rejection of claims 9-11 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the rejection to independent claim 1 and claims 9-11 which depend therefrom.

The nonobviousness of independent claim 35 precludes a rejection of claims 40 and 42 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the rejection to independent claim 35 and claims 40 and 42 which depend therefrom.

Obviousness Rejection Based on Parantainen and U.S. Pat. No. 7,158,504

Claims 17-20, 55, 56 and 61 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Parantainen in view of U.S. Patent No. 7,158,504 to Kadaba *et al.* (“Kadaba”). Applicant respectfully traverses these rejections as hereinafter set forth. (Claims 49 and 50 are objected to.)

The nonobviousness of independent claim 12 precludes a rejection of claims 17-20 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also*

MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the rejection to independent claim 12 and claims 17-20 which depend therefrom.

The nonobviousness of independent claim 52 precludes a rejection of claims 55 and 56 which depend therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the rejection to independent claim 52 and claims 55 and 56 which depend therefrom.

The nonobviousness of independent claim 58 precludes a rejection of claim 61 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicant requests the Examiner withdraw the rejection to independent claim 58 and claim 61 which depends therefrom.

Objections to Claims 14, 15, 46-50, 53, 54, 59 and 60/Allowable Subject Matter

Claims 14, 15, 46-50, 53, 54, 59 and 60 stand objected to as being dependent upon rejected base claims, but are indicated to contain allowable subject matter and would be allowable if placed in appropriate independent form. Applicant acknowledges this indication with appreciation, but respectfully asserts that the claims in their present form, along with all other claims presently under consideration, are in condition for allowance.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant respectfully submits that all of the pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

Dated: 2011-01-03

By: 
Donald C. Kordich, Reg. No. 38,213
(858) 658-5928

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-5527
Facsimile: (858) 658-2502